



HDZ-003-1103014 Seat No. _____

M. Sc. (Sem. III) (CBCS) Examination

November / December – 2017

C (OP) - 304 : Organopharmaceutical Chemistry

(Chemistry of Natural Products : ELE - I)

Faculty Code : 003

Subject Code : 1103014

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- Instructions :** (1) All questions are compulsory.
(2) All Questions carry equal marks.
(3) Attempt all questions.

1 Answer the following : (Any Seven) 14

- Discuss the physiology of Prostaglandins.
- Write the synthesis of Sceletium A₄.
- Differentiate: Nucleoside and Nucleotide.
- Give the synthesis of Pantothenic acid.
- Discuss the reaction of Hydroiodic acid with Vitamin E₃-E₄.
- Write the synthesis of Colchicine.
- Discuss the role of Nitrosoyl chloride for the structure elucidation of terpenoids.
- Write the synthesis of Santonine.
- Write the classification of Hormones with suitable example.
- Discuss the classification of proteins.

2 Answer the following : (Any Three) 14

- Give the synthesis of Riboflavin.
- Give the synthesis of strychnine.
- Write the synthesis of Longifilene.
- Discuss the synthesis of Niacin.

- 3** Answer the following : (Any **Three**) **14**
- (a) Define the term 'Vitamins'. Give its classification with proper example.
 - (b) Explain F-MOC protecting group synthesis over a solid phase.
 - (c) Define the term "Steroid" and discuss the chemistry of Progesterone's.
 - (d) Write the synthesis of ACTH.
- 4** Answer the following : **14**
- (a) Discuss the structure elucidation of Zingiberine.
 - (b) Discuss the point of attachment of sugar with Pyrimidine and Purine bases.
- OR**
- 4** Answer the following : **14**
- (a) Give the analytical evidences of Reserpine.
 - (b) Discuss the constitution of Testosterone.
- 5** Answer the following : (Any **Two**) **14**
- (a) Give analytical evidences for β -Tocopherol and its synthesis.
 - (b) Discuss the structure elucidation of Eudesmol. Also write its synthesis
 - (c) Give a brief account on Prostaglandins.
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